



ARIZONA DEPARTMENT OF REVENUE
Property Tax Division

LAND MANUAL

CHAPTER 6
UNSUBDIVIDED LAND AND
UNDEVELOPED RURAL LAND

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UNSUBDIVIDED LAND

A.R.S. § 32-2101(58) states, "Unsubdivided lands means land or lands divided or proposed to be divided for the purpose of sale or lease, whether immediate or future, into six or more lots, parcels or fractional interests and the lots or parcels are thirty-six acres or more each but less than one hundred sixty acres each, or that are offered, known or advertised under a common promotional plan for sale or lease, except that agricultural leases shall not be included in this definition."

List of qualifications for "unsubdivided land" as stated in A.R.S. § 32-2101(58):

- a) Land divided or proposed for division for the purpose of sale or lease.
- b) Land divided into six or more lots, parcels, or fractional interests.
- c) Lots, parcels, or fractional interests 36 acres to less than 160 acres in size.
- d) Agricultural leases do not qualify under definition of "unsubdivided land".

Pursuant to A.R.S. § 32-2195, the State Real Estate Commissioner must provide written authorization for the sale of unsubdivided land. The criteria on which the State Real Estate Commissioner bases approval includes a valid legal description, permanent access, and an accurate statement relative to the availability of water and utilities. The Commissioner issues a public report and requires distribution of the public report to each prospective purchaser.

Once a determination that splitting or division occurred, on a cooperative basis, the title company or the developer will provide a plat map and necessary documents for property identification. A.R.S. § 42-15052 provides the Assessor with the necessary legal authority to demand maps, drawings, and papers pertinent to such property. In the case of "unsubdivided land", normal subdivision approval procedures do not apply. Parcels of this type require close monitoring due to lack of normal controls and reporting requirements.

At this point appraise the "unsubdivided land" on the basis of the market value of each lot, parcel, or fractional interest. Assign the appropriate value related to the selling price. Values established during each phase of development will include an allocation of the existing off-site values to the lot, parcel, or fractional interest values.



Generally, the development and marketing of this type of land happens in phases. Establishing a valuation procedure oriented to the development and sales trends of the “unsubdivided land” on a phase by phase basis will provide the Assessor with a reliable and flexible ad valorem appraisal base.

Undeveloped Rural Land. Encroachment of urban development in rural areas precipitates a complex appraisal problem. Land values blend out from urban areas, and appraisers reflect values accordingly into the adjacent rural land. Sales prices give the best evidence to value urban encroachment to arrive at an acre value for the rural land in these transitioning areas. Although generally located in rural areas, undeveloped rural land does not qualify as either ranching or farming land, and vary in size from several acres to several hundred acres.

Value Pattern. When undeveloped rural land has equal amenities, the parcels generally sell depending on size. Resulting sales prices on a simple scatter graph will plot a value curve pattern. Plot sales on the graph by price per acre of undeveloped rural land. Plotting sales on a graph will help identify other land characteristics that influence land value such as location, access, view, and topography. Draw a curve through the plotted points to represent the average price per acre based on the land size. Counties with computer capabilities use regression analysis to provide a value curve line with greater accuracy. Sales on the graph with points far above or below the curve line possibly indicate land characteristics other than size that influence value. One fairly typical sale property with the exception of an excellent view will have a point above the curve line. Another fairly typical sale property with the exception of an access problem will have a point below the curve line. The indicated price per acre differences for properties with special features or problems will be a guide to adjustments to use on properties with similar conditions.

Due to economies of scale, the value per acre will decrease as the parcels increase in size. An acreage schedule developed from each simple scatter graph represents the force of supply and demand in each market area. Test the new values for uniformity using a ratio study to spot any inequities in the land schedule.

Example. Generated from the scatter graph, see the rural land value schedule below with size modifiers that have a base size of 20 acres.



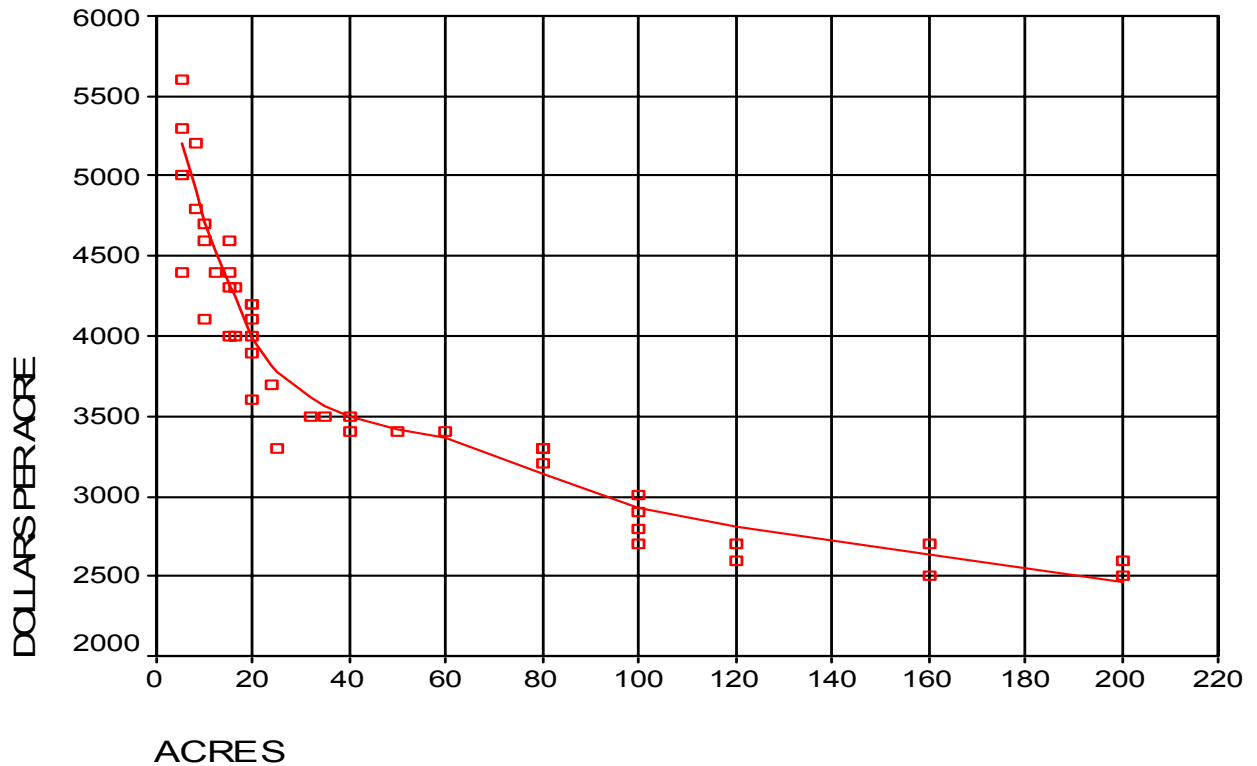
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Acres	Price/Acre	Size Modifier
2	5240	1.33
3	5169	1.31
4	5097	1.29
5	5026	1.27
10	4668	1.18
15	4311	1.09
20	3954	1.00
30	3492	0.88
40	3456	0.87
50	3421	0.87
60	3385	0.86
70	3110	0.79
80	3057	0.77
90	3004	0.76
100	2952	0.75
120	2847	0.72
140	2741	0.69
160	2636	0.67
180	2531	0.64
200	2426	0.61

See the array of sale ratios on the next page.



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Acres	Appraised Value	Sale Price	Sale Ratios
5.00	\$ 25,130	\$ 28,000	90
8.00	\$ 38,488	\$ 41,600	93
80.00	\$ 244,560	\$264,000	93
80.00	\$ 244,560	\$264,000	93
200.00	\$ 485,200	\$520,000	93
15.00	\$ 64,665	\$ 69,000	94
20.00	\$ 79,080	\$ 84,000	94
20.00	\$ 79,080	\$ 84,000	94
5.00	\$ 25,130	\$ 26,500	95
24.00	\$ 84,312	\$ 88,800	95
80.00	\$ 244,560	\$256,000	96
20.00	\$ 79,080	\$ 82,000	96
200.00	\$ 485,200	\$500,000	97
160.00	\$ 421,760	\$432,000	98
15.00	\$ 64,665	\$ 66,000	98
100.00	\$ 295,200	\$300,000	98
16.00	\$ 67,824	\$ 68,800	99
40.00	\$ 138,240	\$140,000	99
20.00	\$ 79,080	\$ 80,000	99
35.00	\$ 121,590	\$122,500	99
10.00	\$ 46,680	\$ 47,000	99
60.00	\$ 203,100	\$204,000	100
32.00	\$ 111,520	\$112,000	100
8.00	\$ 38,488	\$ 38,400	100
15.00	\$ 64,665	\$ 64,500	100
5.00	\$ 25,130	\$ 25,000	101
50.00	\$ 171,050	\$170,000	101
20.00	\$ 79,080	\$ 78,000	101
10.00	\$ 46,680	\$ 46,000	101
40.00	\$ 138,240	\$136,000	102
100.00	\$ 295,200	\$290,000	102
12.00	\$ 54,300	\$ 52,800	103
100.00	\$ 295,200	\$280,000	105
120.00	\$ 341,640	\$324,000	105
160.00	\$ 421,760	\$400,000	105
16.00	\$ 67,824	\$ 64,000	106
25.00	\$ 87,750	\$ 82,500	106
15.00	\$ 64,665	\$ 60,000	108
100.00	\$ 295,200	\$270,000	109
120.00	\$ 341,640	\$312,000	110
20.00	\$ 79,080	\$ 72,000	110
10.00	\$ 46,680	\$ 41,000	114
5.00	\$ 25,130	\$ 22,000	114



Next, select a base unit value predicated on the typical sized parcel in the area. Before developing the size modifier, establish the size range for rural tracts. Once you have determined size ranges, compute size modifiers using the relationship between base acre value and values for each size above or below the base. Develop the schedule for rural land by using the following formula. $\text{Value at X acres} / \text{base acre value} = \text{size modifier}$. After developing the schedule for rural undeveloped land, select primary benchmarks. Appraise the sales used in the rural land study by applying the acreage values from the rural land schedule. This may require some interpolation of the modifiers. Perform a ratio study by making a ratio comparison between the new appraised value and the sale price as shown in the table above using the following formula. $\text{New appraised value} / \text{Sales price} = \text{Ratio}$. Check the ratios for appraisal level and appraisal uniformity utilizing statistical analysis.

Appraisal Level	
Mean	1.00
Median	1.00

Appraisal Uniformity	
COV	5.84
COD	4.55

Measures of appraisal level use the mean of the ratios and the median ratio of new appraised value to sale price of each observation to describe the typical level of appraisal. The mean and median at a measure of 1.00 indicates properties statistically appraised at 100% of market value. With a mean of the ratios at 1.00 and the median ratio at 1.00 indicates the rural undeveloped land schedule generates a good appraisal level. Measures to describe the degree of consistency between appraisals and market value include the coefficient of variation and the coefficient of dispersion. In appraisal, distributions of data are typically less than normal, so the coefficient of dispersion gives the best measure of uniformity. The data in the example above has been contrived to demonstrate key appraisal concepts using basic statistical tools. Usually, actual data will display greater dispersion than the example. The *Standard on Ratio Studies* (IAAO 1999) suggests a COD of below 20 acceptable for vacant land. As applied in Arizona, a COD of 25 percent or less for vacant land is considered acceptable in all counties. In the example above, 95% of the ratios fall between 90 and 110, 60% of the ratios fall between 95 and 105, and the ratios have a low coefficient of dispersion of 4.55. The low COD indicates good appraisal uniformity.

Select undeveloped rural land benchmarks from the array of ratios. For example, the appraiser may select sales with a range of ratios between 95 and 105 inclusive as primary benchmarks. The sales with ratios falling outside of the range serve as supplemental benchmarks, and might help explain the range of value for properties with atypical



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characteristics. Write a narrative description of the amenities and characteristics found in the benchmark properties to serve as standards when appraising undeveloped rural land properties.

Upon completion of the tables, the graphs, and the schedules, the blending of values between adjacent market areas commences. A large map provides another valuable tool to help "blend" the values between adjacent areas of market activity, and furnishes a wider perspective of the area. Accomplish blending by a combination of physical inspection and sales analysis. Collecting land sales data, posting sales data to maps, field checking land sales, and blending market data to establish ad valorem property values for this class of land may take several months.